

## REMARKS

Applicants request favorable reconsideration and withdrawal of the rejections set forth in the above-identified Office Action in view of the foregoing amendment and the following remarks.

Claims 1-6 remain pending, with claim 1 being the only independent claim. Claim 1 has been amended herein. Support for the amendment can be found throughout the originally-filed disclosure, including, for example, the originally-filed claims. More specific discussion of the support for the amendments to claim 1 can be found below in conjunction with the Section 112 rejection. Thus, Applicants submit that the amendments do not include new matter.

### Section 112 Rejection

Claims 1-6 are rejected in the Office Action under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action asserts that there is not support in the originally-filed disclosure for “a predetermined amount,” as recited in claim 1, and, thus, the scope of the claims encompassed by the recitation of the predetermined amount constitutes new matter. The Office Action further asserts that there is not support in the originally-filed disclosure for the claim language included in the previous amendment that relates the amount of alkali (M), added to neutralize the acidic groups in the block copolymer, to amounts (A) and (B) of alkali that obtain certain infrared absorption intensities.

Applicants respectfully traverse this rejection, and submit that the claims comply with Section 112 for at least the following reasons.

With respect to the recitation of a “predetermined amount,” Applicants submit that this phrase is, in effect, a mere rephrasing of the original claim language, which included a recitation

that the ink included “a content of said alkali” that resulted in a specified infrared absorption intensity. In this original claim language, “content” of the alkali is an “amount” and the specified infrared absorption intensity indicates how the content/amount is determined before the addition to the composition, hence, a “predetermined.” Nevertheless, without conceding the propriety of this aspect of the Section 112 rejection, Applicants have deleted the recitation of “a predetermined amount” in claim 1. Accordingly, this portion of the Section 112 rejection has been obviated.

With respect to claim language relating the amount of alkali (M) to amounts (A) and (B) of alkali that result in the specified infrared absorption intensities, Applicants submit that this language is commensurate with the previously-recited claim language, and, further, is set forth in the originally-filed specification so as to satisfy the written description requirement. Originally-filed claim 1 included the recitation:

[A] content of said alkali is such that, when an infrared absorption intensity ascribable to ionic groups to be formed upon addition of an excess amount of said alkali to said block copolymer is supposed to be 100%, an infrared absorption intensity ascribable to ionic groups formed by dissociation of said acidic groups contained in said block copolymer becomes at least 80%, with a proviso that said content does not exceed twice as much as a smallest amount of said alkali that an infrared absorption ionic groups to be formed from said block copolymer becomes 100%.

This claim language clearly indicates that an “excess amount” of alkali is the amount that, if added to the ink, results in a 100% infrared absorption intensity ascribable to the ionic groups. Moreover, the specification further indicates that when alkali is added in an “excess amount,” the acidic groups in the block copolymer are completely neutralized and dissociated at substantially 100%. See page 5, lines 17-19. Thus, the originally-filed disclosure (including both the original claims and specification) makes clear that an “excess amount” of alkali is an amount that results

in 100% dissociation of the ionic (acid) groups, and, correspondingly, results in a 100% infrared absorption intensity ascribable to the ionic groups. Further, as there can be no infrared absorption intensity greater than 100%, the recitation of 100% infrared absorption intensity must necessarily be “the upper limit of infrared absorption intensity.”

The above-quoted passage from original claim 1 further clearly indicates that the amount of alkali actually added is as such that the infrared absorption intensity ascribable to ionic groups is at least 80%. Further, the proviso clause in original claim 1 indicates that content/amount of the alkali does not exceed twice the smallest amount of alkali that results in the upper limit of infrared absorption intensity, or “100% infrared absorption intensity.”

In view of these passages in original claim 1 and the specification, it is clear that recitations in amended claim 1 relating the amount (or “content”) of alkali (M) to amounts (A) and (B) of alkali for obtaining certain infrared absorption intensities meet the written description requirement. The recitation that the amount M is greater than or equal to “A,” “an amount of said alkali to be added to neutralize the acidic groups in said block copolymer for obtaining an infrared absorption intensity as low as 80% of an upper limit of infrared absorption intensity ascribed to ionic groups to be formed upon addition of an excess amount of said alkali to said block copolymer,” is described at least in both original claim 1 and the specification in the context of an excess amount of alkali resulting in the upper limit of infrared absorption intensity at 100%, and in the context of the amount of alkali actually added in original claim 1. Further, the recitation that M is less than or equal to twice “B,” “a smallest amount of said alkali to be added to reach said upper limit of infrared absorption intensity” is described in at least the proviso clause in original claim 1.

Applicants additionally note that the Office Action asserts, with respect to the recitation of an excess in original claim 1, that there “is no suggestion that this ‘excess’ is not an equivalent excess that is defined as giving 100% absorption of the instant claims. Applicants do not fully understand this assertion, as, it appears to indicate that there is “no suggestion” that “excess,” as used in the present is claims, is “not equivalent” to the previous claims, which, in turn, means that the term “excess” is equivalently used in the original and present claims. The equivalent use of claim terminology in original and amended claims does not raise any issue with respect to the written description requirement under Section 112. In any event, Applicants submit that the amended claims meet the written description requirement for at least the reasons discussed above.

#### Section 103 Rejection

Claims 1-6 are rejected in the Office Action under 35 U.S.C. § 103(a) as being unpatentable over Watanabe (U.S. Patent Application Pub. No. 2004/0239738). Claims 1-6 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Sato et al. (U.S. Patent Application Pub. No. 2003/0027894) in view of Watanabe.

Applicants respectfully traverse these rejections, and submit that the claims are patentably distinguishable from the cited references for at least the following reasons.

The Office Action asserts that Watanabe discloses an ink with features of the claimed invention. In particular, the Office Action refers to the disclosure at paragraph 0106 of Watanabe as using amounts of alkali that are within the instantly claimed amounts of alkali.

As an initial matter, however, Applicants are not clear whether the Office Action is asserting that Watanabe anticipates, or merely renders obvious, the claimed amounts of alkali. The Office Action asserts that “it would be obvious to one of ordinary skill in the art” to use the

amounts of neutralization alkali because “they are encompassed by the reference.” Office Action, p. 4, lines 19-21. This appears to indicate that the Office views the amount of alkali as both anticipated by Watanabe (“encompassed”), but also indicate that the Office views the amount of alkali as merely obvious in view of Watanabe, and thereby not anticipated. Nevertheless, Applicants submit that the claimed amount of alkali is neither anticipated nor rendered obvious by Watanabe, and will discuss these two possibilities below.

To the extent that the Office Action is asserting that Watanabe anticipates the claimed amount of alkali, Applicants note that Watanabe does not expressly disclose at paragraph 106, or any other portion of the reference, an amount of alkali on the basis of infrared absorption intensity. Thus, in effect, the Office Action must be asserting that the claimed amount of alkali on the basis of infrared absorption intensity is inherent in the disclosure of Watanabe. See MPEP § 2131 (noting that anticipation requires either express or inherent disclosure). To establish inherency, the extrinsic evidence must make clear that the feature, which is not expressly disclosed, is necessarily present in a reference. MPEP § 2112. The mere fact that a feature may be present in a reference is not sufficient to establish inherency of the feature. Id.

Paragraph 0106 of Watanabe discloses that the salt compound (an alkali) is preferably added in an amount of about 1.3 times the neutralization equivalent from the standpoint of ink fixation after printing. As described in the Declaration under 37 C.F.R. § 1.132 by Tomoya Yamamoto, filed on August 14, 2008, in an experiment where a 1.3-fold alkali equivalent was used with a triblock polymer, the triblock polymer was only neutralized to 78%, with the degree of neutralization being measured by the same method of infrared absorption as described in the specification of the present application at page 28, line 23 through page 29, line 8. See

Declaration at p. 2. Thus, using 1.3 times the neutralization equivalent, as described by Watanabe at paragraph 0106, does not result in obtaining an infrared absorption intensity of at least 80% of an upper limit of infrared absorption intensity, as recited in independent claim 1. Moreover, at the very least, this shows that the disclosure of Watanabe with respect to the amount of alkali added does not necessarily require an alkali to be added in the amount recited in independent claim 1, and, as such, the reference cannot be taken to inherently include this feature of the claimed invention.

In discussing the declaration by Mr. Yamamoto, the Office Action asserts that the declaration:

“shows that in a triblock copolymer, which is not representative of the scope of the instant claims and the cited prior art, a chemical equivalent can give a degree of neutralization of 78%. Thus, it is expected that the excess alkali of Watanabe will give the instantly claimed amount of neutralization, particularly where a more amendable to neutralization block copolymer than that of the applicant’s declaration and examples that is encompassed by the applicant’s claims and Watanabe will necessarily give the instantly claimed degree of neutralization.”

Applicants respectfully submit that this assertion misconstrues the claims of the application and the disclosure of Watanabe, and, as such, incorrectly dismisses the declaration of Mr. Yamamoto. The recitation of the amount of alkali in the claims is on the basis of a certain neutralization, regardless of the block copolymer being used. That is, according to the claimed invention, if the particular block copolymer were varied, the amount of alkali would be varied in order to maintain the recited percent neutralization. In this regard, the teaching of Watanabe is the same in that it prescribes the amount of alkali on the basis of neutralization and not on the basis of the particular block copolymer, albeit to achieve a different neutralization percent than in the presently claimed

invention as described above. The reference in the Office Action to a different copolymer that is more amenable to neutralization is irrelevant in this context, as both the claims and Watanabe would prescribe relative adjustment of amounts of alkali to achieve their respective neutralization percents of the copolymer. Thus, the fact that the copolymer is neutralization-amenable would not change this difference between the claimed invention and Watanabe as again, the amount of alkali added would necessarily be different. This also indicates that, contrary to assertion in the Office Action, the copolymer referred to in the declaration by Mr. Yamamoto is representative of both the scope of the claims and the disclosure of Watanabe, at least with respect to the amount of alkali feature.

To the extent that the Office Action is asserting that it would have been obvious to one of ordinary skill in the art to modify the disclosure in Watanabe with respect to the amount of alkali, Applicants respectfully traverse the rejection on the grounds that a proper prima facie case of obvious is not established in the Office Action, nor could such a case be established based on the disclosure of Watanabe. The Office Action asserts that a modification of the amount of alkali would be obvious to one of ordinary skill in the art because it is “encompassed” by Watanabe. As described above, however, Watanabe neither expressly nor inherently discloses the claimed amount of alkali. Thus, amount of alkali is not “encompassed” by Watanabe. The Office Action further asserts that the amount of alkali would have been obvious to one of ordinary skill in the art because it would have been expected to give the properties described in the reference including fixation and the well known properties of vinyl ether monomers of the reference. Applicants respectfully traverse this reasoning in as much as the Office Action does not cite to any portion of Watanabe that indicates the results would be expected, other than paragraph 0106 of the reference,

which, as described above, does not include the amount of alkali claimed in the present application. To the extent that the Office Action refers to the “well known properties of the vinyl ether monomers of the reference,” Applicants do not understand how any well known property of a vinyl ether monomer, in and of itself, would suggest modifying the prescribed amount of alkali set forth in Watanabe. In this regard, the Office Action appears to be taking Official Notice of “well-known” facts, and Applicants respectfully request the Office support such an assertion with other evidence if the rejection is to be maintained. See MPEP § 2144.03.

Applicants still further note that Watanabe does not evidence any range of amounts of alkali to be added, and, in fact, does not appear to include any other discussion of the amount of alkali other than the aforementioned paragraph 0106. Moreover, in the actual disclosure at paragraph 0106, Watanabe indicates that the prescribed amount is “preferable,” which seemingly teaches away from any significant modification of the amount of alkali described in the reference.

In sum, Applicants submit that Watanabe fails to disclose or suggest at least the amount of alkali recited in combination with the other features of the ink recited in independent claim 1.

With respect to Sato et al., the Office Action acknowledges that this reference does not disclose the amount of alkali added to its disclosed aqueous ink. Thus, Applicants submit that Sato et al. alone does not disclose or suggest the water-based ink recited in claim 1. Moreover, given the above-noted deficiencies in Watanabe with respect to the amount of alkali recited in claim 1, Sato et al. and Watanabe collectively fail to disclose or suggest the water-based ink recited in claim 1.

For at least the foregoing reasons, Applicants submit that the references cited in the Office Action fail to disclose or suggest the invention recited in independent claim 1.



Dependent claims 2-6 are also allowable, in their own right, for defining features of the present invention in addition to those recited in independent claim 1. Individual consideration of the dependent claims is requested.

Applicants submit that all of the pending claims are patentably distinguishable over the references of record, and that the application is in condition for allowance. Favorable reconsideration, withdrawal of the outstanding rejections, and passage to issue of the present application are earnestly solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our New York office at the address shown below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Donald H. Heckenberg, Jr.', is written over a horizontal line.

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